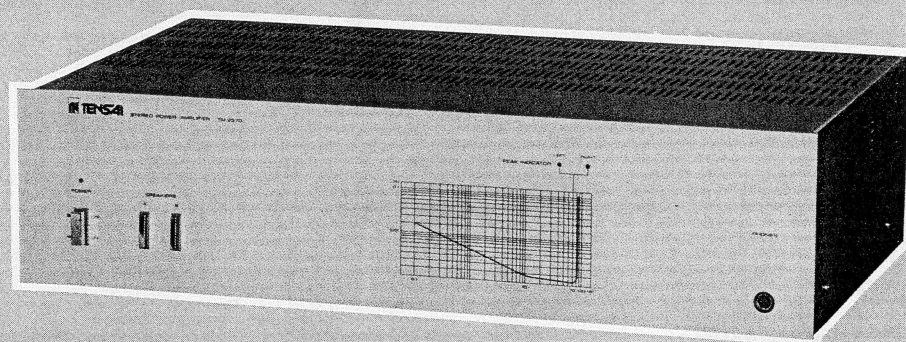


Service Manual

Stereo Power Amplifier

MODEL TM2570



1. SPECIFICATIONS

Power Output 70 Watts per channel at 8 ohms
from 20 to 20,000 Hz, both
channels driven 0.07% T.H.D.
Damping Factor at 1 kHz 8 ohms 40
Frequency Response (−1.5 dB) 5 to 90,000Hz

Signal to Noise Ratio (IHF-A) 115 dB
Power Supply ~ AC 220/240 Volts 50 Hz
Dimensions 430(W) x 109(H) x 250(D) mm
Weight 8.4 kg

Subject to change without notice.

2. DISASSEMBLY INSTRUCTIONS

- (1) **Top cover removal**
Remove six screws on the both sides and back of the set and lift up the top cover.
- (2) **Bottom cover removal**
Remove a screw on the center of the bottom cover and lift the bottom cover.
- (3) **Front panel removal**
Remove four screws (A) from the top and bottom as shown in Figures 1 and 2, and the front panel with push buttons can be removed.

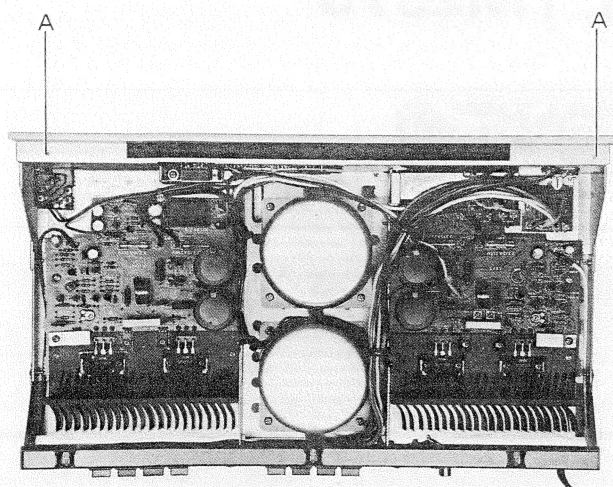


Figure 1

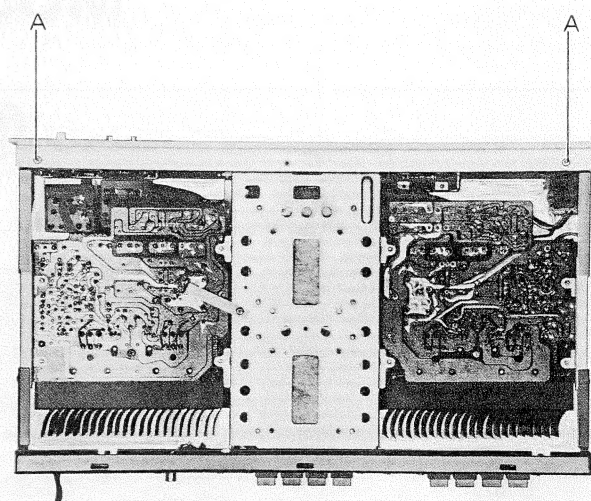


Figure 2

3. ALIGNMENT INSTRUCTIONS

IDLE CURRENT

TEST EQUIPMENTS

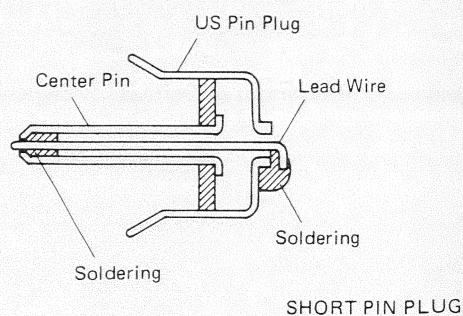
- (1) VTVM (DC).
- (2) Short pin plugs (Accessories of pre-amplifier or Figure).

NOTE:

- (1) Align after five minutes when power has been supplied.

ALIGNMENT (For alignment point, See Figure 5.)

- (1) Connect test equipments as shown in Figure 3.
- (2) Short the input terminal with short pin plugs.
- (3) Adjust the SVR501 (L ch), and SVR502 (R ch) as the VTVM indicates $11 \pm 3\text{mV DC}$.



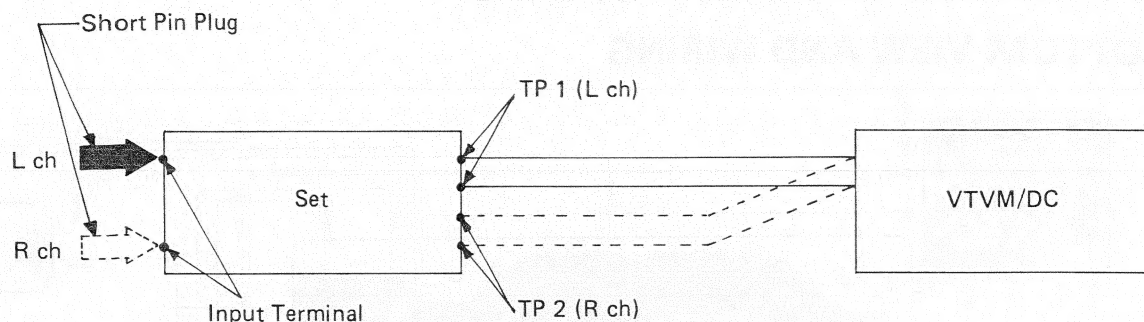


Figure 3

PEAK INDICATION

TEST EQUIPMENT

- (1) AF oscillator
- (2) VTVM (AC).
- (3) Dummy loads (8 ohms above 350W).

NOTE:

- (1) Don't short the speaker terminals.

ALIGNMENT (For alignment point, See Figures 5 and 6.)

- (1) Set the speaker selectors to SPEAKER A position.
- (2) Connect test equipment as shown in Figure 4.
- (3) Adjust the SVR701 (L ch) or SVR702 (R ch) to turn on the peak indicator at 23.66V (70W) on VTVM.

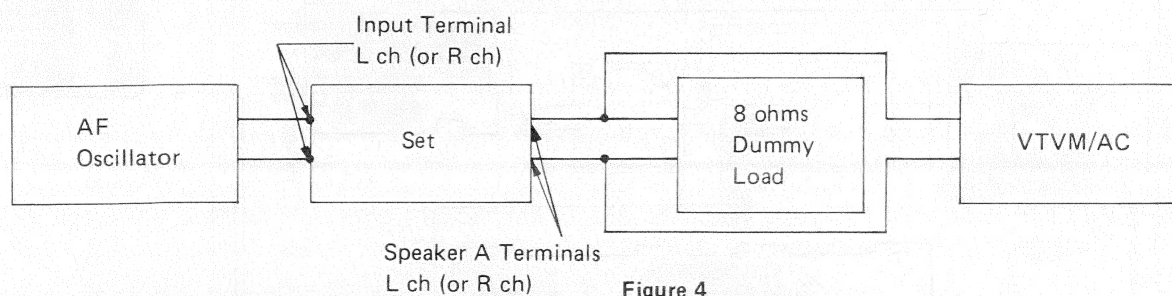


Figure 4

ALIGNMENT POINTS

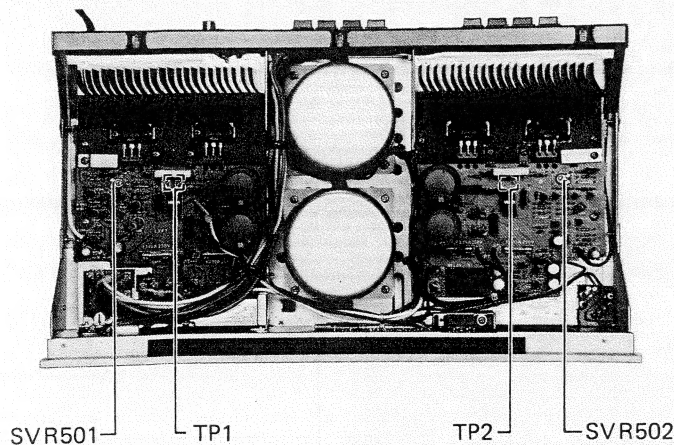


Figure 5

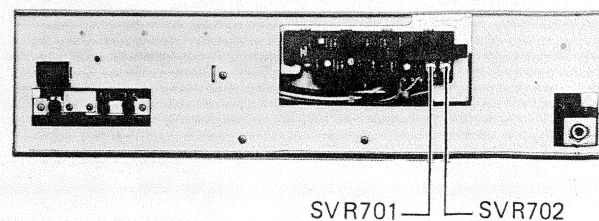
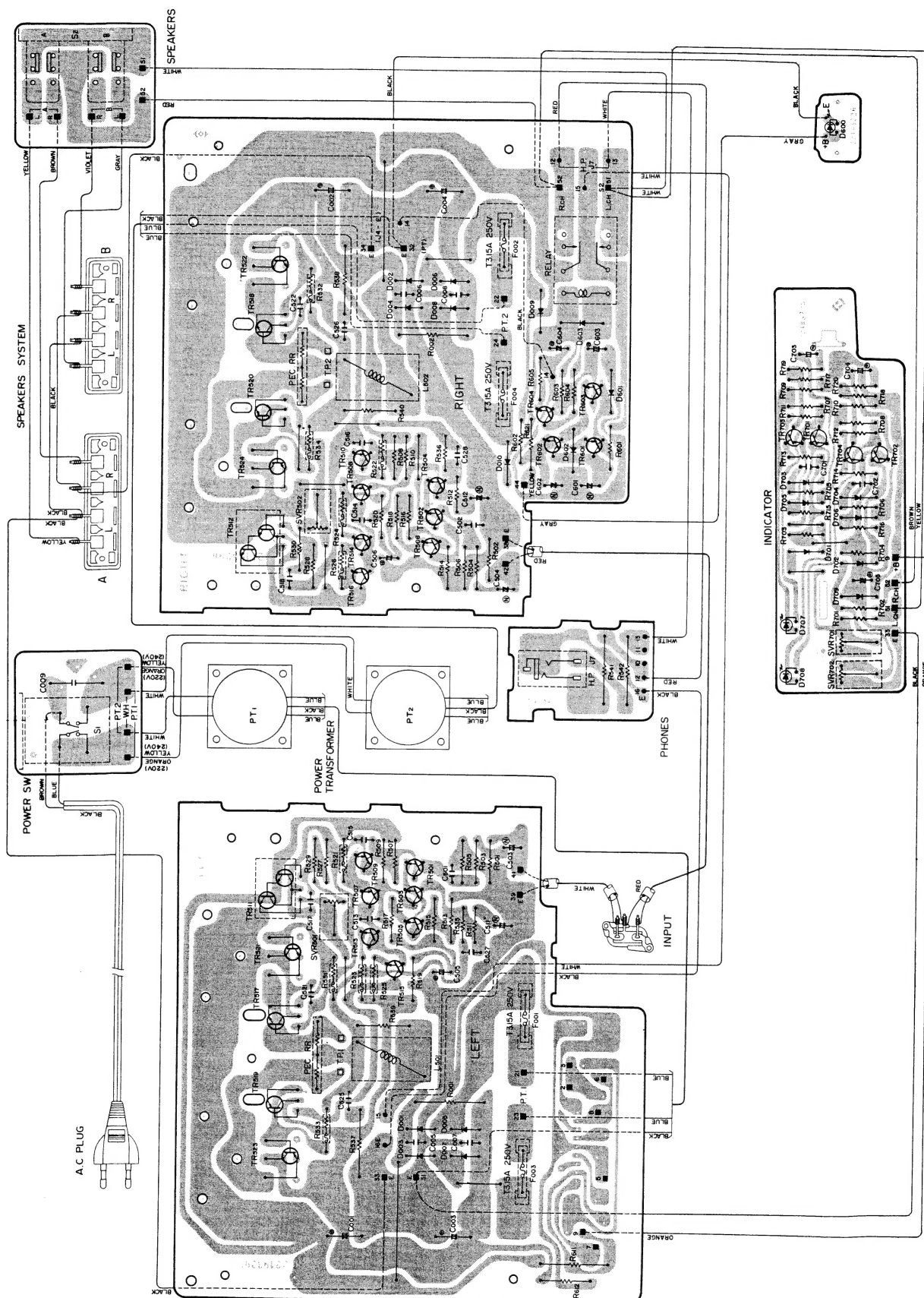


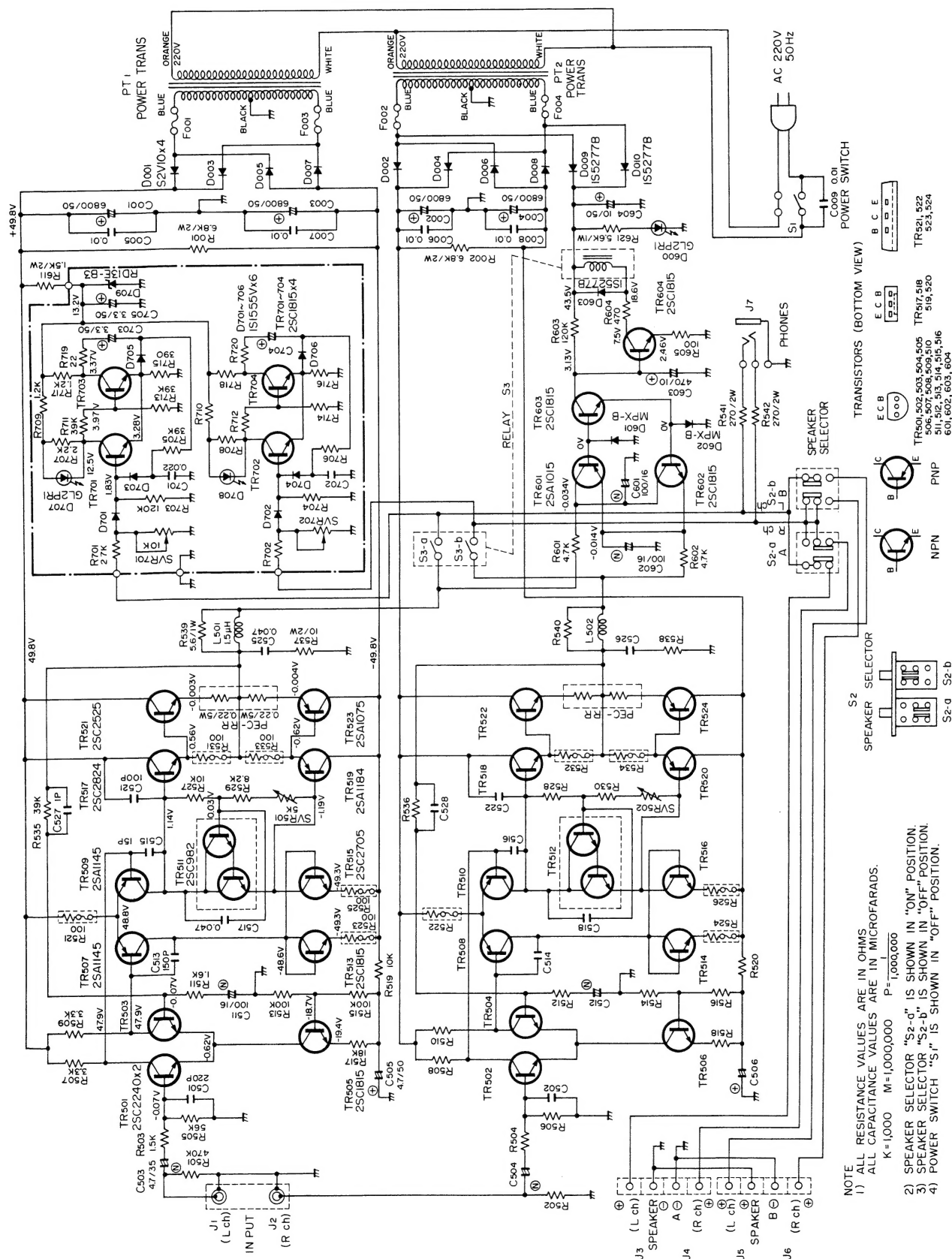
Figure 6

4. PRINTED CIRCUIT BOARDS

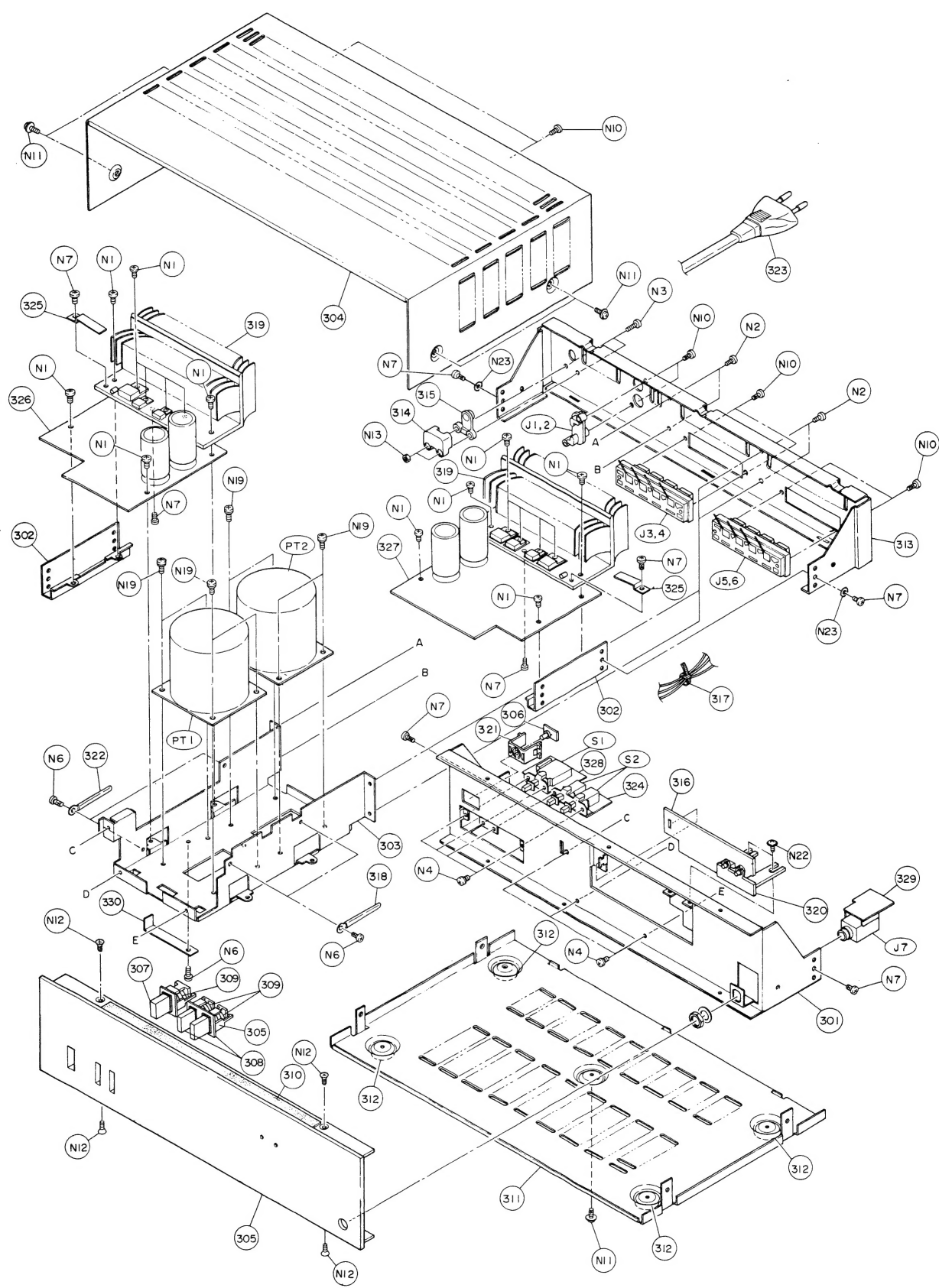
BOTTOM VIEW AND WIRING



5. SCHEMATIC DIAGRAM



6. EXPLODED VIEW AND PARTS LISTS EXPLODED VIEW



PARTS LIST

ELECTRICAL PARTS

Symbol No.	Part No.	Description
TRANSISTORS & DIODES		
Symbol No. with TR: Transistor		
Symbol No. with D: Diode		
TR501, 502	36325846	2SC2240-BL1
TR503, 504	36325846	2SC2240-BL1
or		
TR501, 502	36325847	2SC2240-BL2
TR503, 504	36325847	2SC2240-BL2
or		
TR501, 502	36325848	2SC2240-BL3
TR503, 504	36325848	2SC2240-BL3
TR505, 506	36317480	2SC1815-BL
TR507, 508	36540510	2SA1145-O
TR509, 510	36540510	2SA1145-O
or		
TR507, 508	36540520	2SA1145-Y
TR509, 510	36540520	2SA1145-Y
TR511, 512	36753140	2SC982-TM
TR513, 514	36317480	2SC1815-BL
TR515, 516	36334810	2SC2705-O
or		
TR515, 516	36334820	2SC2705-Y
TR517, 518	36339512	2SC2824-O
or		
TR517, 518	36339522	2SC2824-Y
TR519, 520	36542252	2SA1184-O
or		
TR519, 520	36542262	2SA1184-Y
TR521, 522	22114911	2SC2525-X
or		
TR521, 522	22114912	2SC2525-G
TR523, 524	22114909	2SA1075-X
or		
TR523, 524	22114910	2SA1075-G
TR601	3653404A	2SA1015-Y
or		
TR601	36534060	2SA1015-GR
TR602	36317480	2SC1815-BL
TR603	36317480	2SC1815-BL
TR604	36317480	2SC1815-BL
TR701, 702	36317480	2SC1815-BL
TR703, 704	36317480	2SC1815-BL
or		
TR701, 702	36317460	2SC1815-GR
TR703, 704	36317460	2SC1815-GR

Symbol No.	Part No.	Description
D001, 003	22115564	S2V10-X
D002, 004	22115564	S2V10-X
D005, 007	22115564	S2V10-X
D006, 008	22115564	S2V10-X
D009	37978380	1S5277B
D010	37978380	1S5277B
D600	22115632	GL2PR1
D601	22115506	MPX-B-TPS
D602	22115506	MPX-B-TPS
D603	37978380	1S5277B
D701, 702	37246745	1S1555V-TP3
D703, 704	37246745	1S1555V-TP3
D705, 706	37246745	1S1555V-TP3
D707, 708	22115632	GL2PR1
D709	22115563	RD13E-B3
CAPACITORS		
Tolerance: D: ± 0.5 PF, J: $\pm 5\%$, K: $\pm 10\%$, M: $\pm 20\%$		
P: +100 to -0%, Z: +80 to -20%, G: $\pm 20\%$		
(N): Nonplarity type		
C001, 003	22440402	Electrolytic 6800 mfd/50WV
C002, 004	22440402	Electrolytic 6800 mfd/50WV
C005, 007	22342103	Ceramic 0.01 mfd, Z
C006, 008	22342103	Ceramic 0.01 mfd, Z
C009	22340154	Ceramic 0.01 mfd/400WV
C501, 502	22361221	Ceramic 220 mfd, K
C503, 504	22403080	Electrolytic 4.7 mfd/35WV(N)
C505, 506	22448479	Electrolytic 4.7 mfd/50WV
C511, 512	22403082	Electrolytic 100 mfd/16WV(N)
C513, 514	22361151	Ceramic 150 PF, J
C515, 516	22361150	Ceramic 15 PF, J
C517, 518	22342473	Ceramic 0.047 mfd, Z
C521, 522	22361101	Ceramic 100 mfd, K
C525, 526	22342473	Ceramic 0.047 mfd, Z
C527, 528	22361109	Ceramic 1 PF, D
C601, 602	22403082	Electrolytic 100 mfd/16WV(N)
C603	22443471	Electrolytic 470 mfd/10WV
C604	22448100	Electrolytic 10 mfd/50WV
C701, 702	22342223	Ceramic 0.022 mfd, Z
C703, 704	22448339	Electrolytic 3.3 mfd/50WV
C705	22448339	Electrolytic 3.3 mfd/50WV

Symbol No.	Part No.	Description
RESISTORS		
All fixed resistors are 1/8W, $\pm 5\%$, carbon resistor unless otherwise noted.		
Tolerance: G: $\pm 2\%$, J: $\pm 5\%$, K: $\pm 10\%$		
R001, 002	22573682	Metal Oxide 6.8K ohm, 2W
R501, 502	22543474	470K ohm
R503, 504	22543152	1.5K ohm
R505, 506	22543563	56K ohm
R507, 508	22543332	3.3K ohm
R509, 510	22543332	3.3K ohm
R511, 512	22570579	Metal Oxide 1.6K ohm, $\frac{1}{4}$ W, G
R513, 514	22543104	100K ohm
R515, 516	22543104	100K ohm
R517, 518	22543183	18K ohm
R519, 520	22543103	10K ohm
R521, 522	22500233	Fusible 100 ohm, $\frac{1}{4}$ W, J
R523, 524	22500233	Fusible 100 ohm, $\frac{1}{4}$ W, J
R525, 526	22500233	Fusible 100 ohm, $\frac{1}{4}$ W, J
R527, 528	22543103	10K ohm
R529, 530	22543822	8.2K ohm
R531, 532	22500233	Fusible 100 ohm, $\frac{1}{4}$ W, J
R533, 534	22500233	Fusible 100 ohm, $\frac{1}{4}$ W, J
R535, 536	22570531	Metal Oxide 39K ohm, $\frac{1}{4}$ W, G
R537, 538	22573100	Metal Oxide 10 ohm, 2W
R539, 540	22571569	Metal Oxide 5.6 ohm, 1W
R541, 542	22573271	Metal Oxide 270 ohm, 2W
R601, 602	22543472	4.7K ohm
R603	22543124	120K ohm
R604	22543471	470 ohm
R605	22543101	100 ohm
R611	22573152	Metal Oxide 1.5K ohm, 2W
R621	22571562	Metal Oxide 5.6K ohm, 1W
R701, 702	22543273	27K ohm
R703, 704	22543124	120K ohm
R705, 706	22543393	39K ohm
R707, 708	22543222	2.2K ohm
R709, 710	22543122	1.2K ohm
R711, 712	22543393	39K ohm
R713, 714	22543393	39K ohm
R715, 716	22543391	390 ohm
R717, 718	22543122	1.2K ohm
R719, 720	22543220	22 ohm
SVR501,502	22658471	Semi-Fixed 5K ohm
SVR701,702	22658454	Semi-Fixed 10K ohm

Symbol No.	Part No.	Description
MISCELLANEOUS		
L501, 502	22211228	Choke Coil, AF
S1	22140624	Push Switch (Power)
S2	22140640	Push Switch (Speaker Selector)
S3	22148412	Switch ON Relay
J1, 2	22163765	US2P Jack
J3, 4	22161517	4P Terminal
J5, 6	22161517	4P Terminal
J7	22163719	Jack 6.5 ϕ
F001 ~ 004	22144384	Fuse T3.15A
	22165047	Fuse Holding Terminal
PT1, 2	22223556	Power Transformer
	22176550	Power Cord

EXPLODED VIEW PARTS

Symbol No.	Part No.	Description
301	20015841	Chassis
302	20735705	Bracket
303	20735717	Power Transformer Bracket
304	20848640	Cabinet
305	20836718	Front Panel Assembly
306	22193225	Indicator P.C. Board
307	20874675	Push Button
308	20874676	Push Button
309	22776666	Spring
310	22756528	Cushion
311	22832826	Bottom Cabinet
312	20842649	Foot
313	20015844	Back Chassis
314	22754791	Cord Clamper
315	22184183	Cord Clamper
316	22193226	LED P.C. Board
317	22993614	Band
318	22755516	Clamper Lug
319	22748874	Radiator
320	20747630	LED Holder
321	20747628	LED Holder
322	22161499	Clamper Lug
323	22176550	Power Cord
324	22193259	Switch P.C. Board
325	20746920	Transistor Holder
326	22193295	AF P.C. Board (Left)
327	22193296	AF P.C. Board (Right)
328	22193258	Switch P.C. Board
329	22193160	Headphone P.C. Board
330	20754825	Earth Joint

Symbol No.	Part No.	Description
SCREWS & RINGS		
N1	70433008	Bind Head 3.0 x 8mm
N2	22701757	Bind Head 3.0 x 6mm
N3	22701716	Bind Head 3.0 x 14mm
N4	20795955	Bind Head 3.0 x 6mm with SW
N6	72633006	Bind Head Tapping 3.0 x 6mm
N7	72633008	Bind Head Tapping 3.0 x 8mm
N10	22701724	Bind Head Tapping 3.0 x 10mm
N11	20795992	Pan Head 3.0 x 8mm with W
N12	70443306	Flat Head 3.0 x 6mm
N13	73653000	Nut 3.0 ϕ
N19	22701790	Bind Head Tapping 4.0 x 6mm
N22	20795908	Pan Head 3.0 x 8mm with W
N23	74022030	Lock Washer 3.0 ϕ
ACCESSORIES		
	22953959	Owner's Manual
	22951862	Warranty Card

